

REQUEST FOR RECONSIDERATION

Claims 1-8 remain active in this application.

The claimed invention is directed to a coffee composition, a soluble coffee composition, a packaged beverage filled with a coffee composition and methods for preparing same, comprising 0 to 0.00005 wt.% of hydroxyhydroquinone (HHQ) (claims 1, 3, 4 and 6-8) or no substantial HPLC peak where HHQ would be detected (claims 2, 5 and 6-7).

Coffee compositions are consumed around the world. While it has been recognized that hydrogen peroxide is a component of roasted coffee, method of removal have not been effective at reducing *in vivo* hydrogen peroxide levels. Applicants have discovered that HHQ has an effect of generating hydrogen peroxide *in vivo* and that a coffee composition from which an HHQ content has been reduced does not accelerate the production of hydrogen peroxide *in vivo*. Such a coffee composition is nowhere disclosed or suggested in the cited art of record.

The rejections of claims 1, 2, 6 and 7 under 35 U.S.C. 102(b) or in the alternative under 35 U.S.C. 103(a) over Stelkens GB 354,942 and Sosuke et al JP 6-315,434, of claims 3 and 8 under 35 U.S.C. 103(a) in further view of Schlichter U.S. 3,615,666 and of claims 4 and 5 under 35 U.S.C. 103(a) in further view of Behrman U.S. 2,430,663 are respectfully traversed.

None of the cited references disclose or suggest a composition comprising 0 to 0.00005 wt.% HHQ.

Stelkens has been cited for a disclosure of treatment of infusions of tea and coffee with activated carbon such that caffeine and other distasteful constituents are adsorbed (page 1, lines 74-84). Treatment with activated carbon results in a decrease in the **total nitrogenous content** (43% reduction) of the coffee infusion (page 2, lines 16-20). There is no express disclosure of removal of HHQ. HHQ is not a nitrogenous compound. Applicants

have previously provided evidence that the use of zinc chloride treated activated carbon of an average particles size of 0.2-0.4 mm does not inherently provide an HHQ content as claimed.

JP '434 has been cited for a disclosure of filtering coffee through adsorbents such as activated carbon. The reference report the use of adsorbent for "polymeric brownish black ingredients." There is no disclosure to remove HHQ in the reference, but rather that polymeric brownish black ingredients are removed. The official action reasons that there would be motivation to filter coffee with the adsorbent of JP '434 until a desired level/removal of poisonous substance is obtained.

Contrary, to the interpretation in the official action, JP '434 is directed to a method in which a general **household coffee maker** is provided with a filter portion disposed under a coffee extracting portions, **to control astringency**. Such is not a process for removing discretionary levels of poisonous substances, but rather is merely a process in which an adsorbent is provided to filter the coffee prior to drinking.

Applicants respectfully submit that mere drip filtration of a coffee composition through activated carbon as described in JP '434 would not inherently produce an HHQ level of from 0 to 0.00005 wt.%

As evidence that removal of HHQ to within the claimed range is not inherent, applicants enclose herewith the second declaration of Mr. Hideo Ohminami<sup>1</sup>, a named inventor of the above-identified application. Using an apparatus analogous to that of JP '434 Mr. Ohminami prepared coffee compositions by a drip extraction process, the extract passing through activated carbon. Since the reference does not disclose sufficient experimental details, reasonable adsorbent amounts and extraction times were used. For the examiner's convenience a portion of the data is reproduced below:

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<sup>1</sup> Applicants note that Mr. Ohminami name may also be spelled Oominami, as it appears on his 1.53 declaration.

	A	B	C
Coffee beans	Moca (medium roasted coffee ) 40 g		
Volume of water and temperature	550 mL, 95°C		
Extraction time	3 min		
Activated carbon Shirasagi WH2c 42/60	0 g	5 g	10 g
Content of HHQ	0.001063%	0.000948%	0.000844%
Content of chlorogenic acid	0.12480%	0.12500%	0.12550%
Ratio of HHQ/chlorogenic acid	0.85%	0.76%	0.67%
Amount of extracted coffee	470.0 mL	460.0 mL	455.0 mL

As is apparent, under extraction conditions similar to that of a household coffee maker (3 min) merely passing coffee extract through an activated carbon adsorbent was insufficient to produce a coffee composition having 0-0.00005 wt. % of HHQ (claims 1, 3, 4 and 6-8) or no substantial HPLC peak where HHQ would be detected (claims 2, 5 and 6-7). The contents of HHQ ranging from 0.000844 to 0.001063% all exceed the claim limitation of 0-0.00005 wt. %.

Furthermore, there would be no motivation to extend the treatment conditions with the adsorbent since the adsorbent is merely used to reduce astringency caused by polymeric brownish black ingredients in a general household coffee maker. There is no suggestion to use such an adsorbent to remove all "poisonous substances." Since an HHQ content as claimed is not inherent to the extraction procedure of JP '434, the claimed invention is not rendered obvious over this reference and accordingly withdrawal of the rejections under 35 U.S.C. §103 (a) is respectfully requested.

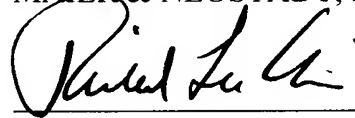
The basic deficiencies of the primary references are not cured by the secondary references as none of the secondary references disclose or suggest a process which would result in an HHQ content, as claimed.

Since the cited references fail to suggest removal of HHQ to a content as claimed, the claimed invention would not have been obvious and accordingly, withdrawal of the rejections under 35 U.S.C. 103(a) is respectfully requested.

Applicants submit that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

A handwritten signature in black ink, appearing to read "Richard L. Chinn", is written over a horizontal line.

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